

Appl. No. 10/695,675  
Amdt. Dated December 9, 2005  
Reply to Office Action of July 11, 2005  
ATTORNEY DOCKET NO: P10-1215-1

**REMARKS**

Applicant submits this response in reply to the Office Action dated July 11, 2005 in the above-identified application. Applicant respectfully requests that this Amendment be entered.

Claims 1 – 6 and 16 were previously cancelled.

Claims 7 – 15 and 17 – 23 remain.

Before addressing the specific rejections made by the Examiner, Applicant would like to point out the distinctive features of his Invention.

First, the article is a Safety Support; not a tire. The Support is placed around the rim and is positioned inside of a pneumatic tire.

Second, when the pneumatic tire loses inflation pressure and heats up on continued rolling, the Support actually expands to help fill the cavity and provide support to the tire so the vehicle can continue. The reason that the Support can expand is that a high level of blowing agent is used in the “blank” (15 to 30 phr – see paragraph 0018), which blowing agent, after cure, is still present in the cross-linked support in a level over 2 phr and preferably greater than 5 phr (see paragraph 0032 and paragraph 0056). This allows for dilation of the support when deflation and heating occurs (see Tables III and IV and paragraph 0068).

Third, the composition of the Blank and the Support does not have to contain a Conductive Additive. In fact, the Support functions best when Silica is used as a filler, not carbon black. The presence of Carbon Black actually detracts from the ability of the

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Support to dilate when deflation and heating occurs (see Table IV which shows that the Control, which had 40 parts of carbon black, expanded less and then actually shrank in volume, while the inventive Support, which had 20 parts of carbon black and 22.5 parts of silica, expanded more and remained dilated). This happens because the silica prevents the undesirable decomposition of the blowing agent (see paragraphs 0020 and 0047).

**Rejection of Claims 7 – 9 and 23 under 35 U.S.C. 102(e).**

The Examiner rejected the claims as being anticipated under 35 U.S.C. 102(e) by Babinec et al (US 6,380,294). Applicant respectfully traverses this rejection. Claims 7 to 9 are directed to an expandable, cross-linkable Blank.

As stated above, Applicant's Blank (and Support) are not tires (the Support is positioned inside of a pneumatic tire). Hence, the Blank is not "a cross-linked foam structure suitable for use as a tire", which the Examiner states is disclosed by Babinec. Babinec does not disclose an expandable safety Support.

Further, Applicant's Blank contains a high level of blowing agent – 10 to 30 phr. This high level is used because, after cure, a residual amount of the blowing agent remains in the Support which makes the Support expandable when deflation of the pneumatic tire and heating occurs.

Lastly, Babinec's structure must contain a Conductive additive. Babinec states that carbon black can be this conductive additive (see col. 10, line 23 et seq.). Babinec

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discloses silica as an "other additive" which "can also be included" (col. 20, lines 17 – 28). In contrast, Applicant's Blank (and Support) contains silica which is a recited ingredient in the mix of Claim 8. Applicant shows in his Examples that the presence of carbon black actually inhibits the ability of the safety Support to expand and dilate after deflation of the pneumatic tire and heating occurs. See Table IV which shows that the Control, which had 40 parts of carbon black, expanded less and then actually shrank in volume, while the inventive Support, which had 20 parts of carbon black and 22.5 parts of silica, expanded more and remained dilated. This happens because the silica prevents the undesirable decomposition of the blowing agent (see paragraphs 0020 and 0047).

Hence, Babinec does not anticipate Applicant's Blank as claimed in claims 7 – 9 and 23.

**Rejection of Claims 10 – 15 and 17 - 22 under 35 U.S.C. 102(e).**

The Examiner rejected claims 10 – 15 and 17 - 22 as anticipated by Babinec et al (US 6,380,294). Applicant respectfully traverses this rejection.

The arguments made by the Applicant above apply here also. First of all, Applicant's Support is not a tire. It is an expandable safety support positioned inside a pneumatic tire. Secondly, Applicant's Support contains a residual amount of the blowing

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agent, at least 2 phr and preferably more than 5 phr (see paragraph 0032 and paragraph 0056). This residual blowing agent allows the Support to expand when the

pneumatic tire deflates and heats on continued running. The expansion helps fill the tire cavity and permits longer running in a deflated condition. Babinec does not disclose or teach an amount of blowing agent remaining in his cross-linked foams.

Independent Claims 10 and 11, which are product-by-process claims, have been amended to include the (1) high level of blowing agent in the "kneading" step and the residual level of the blowing agent in the cured Support. Hence, these claims are directed to a product different than disclosed by Babinec.

**Rejection of Claims 10 – 15 and 17 - 22 under 35 U.S.C. 103(a).**

The Examiner rejected claims 10 – 16 and 17 - 23 as being obvious over Babinec (US 6,380,294). Applicant respectfully traverses this rejection.

Babinec does not teach or suggest the use of his cross-linked foam as an expandable safety support. Babinec does not teach or suggest the use of high levels of blowing agents such that, after cure of the blank, the Support still has an effective residual amount of blowing agent present which allows the Support to expand if and when the pneumatic tire deflates and heats on continued running. Babinec does not teach or suggest that the addition of Silica with Carbon Black to the mix yields an improvement over the use of carbon black alone.

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Applicant submits that Claims 7 – 15 and 17 - 23 are in condition for Allowance,  
and respectfully requests that they be allowed.

Respectfully submitted,

  
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Dated: 8 Dec. 2005